

## OPTICAL TRANSFER SYSTEM HAVING A TRANSMITTER AND A RECEIVER

### Abstract of the Disclosure

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An optical transfer system having a transmitter and a receiver converts an externally-applied video signal into an optical signal and restores the optical signal to the original video signal. The system includes a video controller, a transmitter, a transmission photo diode, an optical transmission line, a reception photo diode, and a receiver. The video controller separates color signals and a horizontal/vertical synchronous signal from the video signal, and transmits the color signals and the horizontal/vertical synchronous signal in response to externally-applied predetermined data enable and clock signals. The transmitter skew-compensates and compresses signals received from the video controller and converts the compressed signals into a driving current. The transmission photo diode converts the driving current into an optical signal and outputs the optical signal. The optical transmission line is comprised of a predetermined number of channels, and transmits the optical signal. The reception photo diode converts the optical signal received from the optical transmission line into a current signal and outputs the current signal. The receiver converts the current signal into a voltage signal, decompresses the voltage signal, compensates for the skew of the voltage signal, and restores the original signal. Accordingly, data for an LCD monitor is optically transmitted, so that rapid data transmission can be achieved and so that electromagnetic interference (EMI) noise can be removed.

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